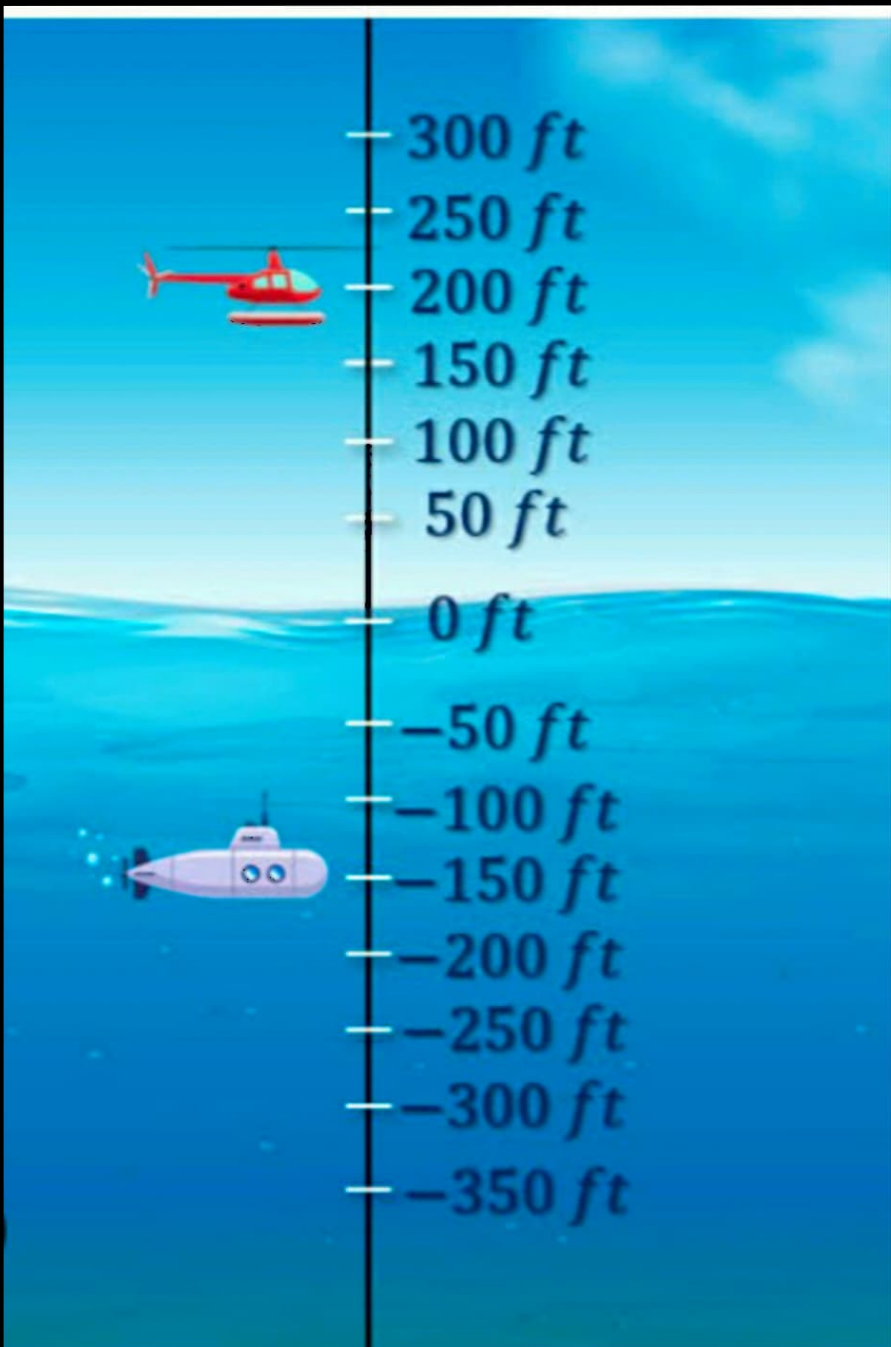


CASE STUDY 1

In a helicopter, Virat is 200 feet above sea level and in a submarine, Rohit is 150 feet below sea level. The speed of the helicopter is 150 feet/sec and the submarine goes 3 feet/sec.



Q(1). How far Virat and Rohit were from each other initially?

Q(2). If the helicopter moves down for 1 sec and stop there and the submarine moves up for 15 sec stop there then how apart will they be from each other?

Q(3). If the submarine moves up for 2 sec at 10 a.m then moves down for 4 sec at 11a.m again moves up for 5 sec at 12noon and finally moves down for 6 sec at 1p.m respectively then where will it be after moving down at 1p.m?

Q(4) Find the distance between Virat and Rohit if Virat moves up for 2sec then moves down for $\frac{1}{2}$ sec and Rohit moves down for 8 sec then moves up for 5 sec.

Q(5). If the speed of the helicopter increase by 50 feet/sec and it moves down for a sec then how much feet the submarine should move up so that the submarine and the helicopter will reach at the same place?

CASE STUDY 2

1. The scores of eight groups in 4 rounds of quiz competition in a class of 40 students are listed in the following table:

NAME	ROUND 1	ROUND 2	ROUND 3	ROUND 4	TOTAL SCORE
GROUP A	+10	-8	-15	+25	
GROUP B	-6	-13	+20	-1	
GROUP C	-3	+10	+14	+3	
GROUP D	+21	+12	-7	+1	
GROUP E	+7	-15	+12	-4	
GROUP F	0	-9	-1	+2	
GROUP G	-11	+23	0	-3	
GROUP H	+22	-11	-15	+13	

Answer the following questions:

- Calculate the total score of all the groups after completion of all the four rounds.
- Which group or groups had the lowest score?
- Which group or groups had the highest score?
- Find the ratio of total score of group A to that of group H?
- What will be the reciprocal of total score of group F?
- Subtract group H total score from group F total score.
- Which round is the best round for group E?